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ABSTRACT

A survey of rural and suburban principals in Ohio and West Virginia explored the different approaches to planning that principals take and examined two possible contextual influences: rural versus suburban locale, and state. A survey instrument based on five types of planning discussed in the literature was completed by 207 West Virginia principals and 441 Ohio principals. The findings did not substantiate a continuum of planning approaches, as the literature suggested, but rather an amalgam. Principals reported an eclectic use of planning approaches, with organized anarchy, in general, the least favored approach. The "new technicist" approach was more favored among suburban than rural principals and among West Virginia than Ohio principals. The interaction of locale and state was significant for the traditional-consensual approach, with aggregate factor scores increasing from rural to suburban in West Virginia, but decreasing from rural to suburban in Ohio. Rural West Virginia principals exhibited significantly higher ratings than other principals on the organized anarchy approach, which permits an organization to take action in the face of uncertainty or duress. Overall, the findings suggest that the particulars of locale (state and locale as they encompass and differentiate prevailing conditions) rather than locale per se account for differences in principals' approaches to planning. Discussion focuses on rural principals' capacities to plan school programs that help sustain rural communities. (Contains 56 references.) (SV)

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Do Rural and Suburban Principals Approach Planning Differently? A Two-State Comparison

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Abstract

Rural school principals find themselves completing school improvement plans mandated by SEAs, largely on the model of technical rationality. Given increasing responsibility for rural school improvement, rural principals are nonetheless apt to lack the planning resources (e.g., staff development, consultants, higher education) to which other (e.g., suburban) principals have access. Using a research instrument grounded in theories about planning, we surveyed a stratified random sample of principals (n=651). Results indicate that significant differences by locale and by state are partially explained by two covarying personal and organizational characteristics. Implications concern hopes for principals' capacities to plan school programs that help sustain rural communities.

Do Rural and Suburban Principals Approach Planning Differently?
A Two-State Comparison

Introduction

No less than schools anywhere, rural schools are confronting changes in the environments surrounding them. Depending upon the particular locale, these changes might result from outmigration of younger, well-educated residents or inmigration of well-educated telecommuters (Long & Nucci, 1998; Nord, 1995). They may implicate economic decline or shifts in the community's fundamental character (Lewis, 1995; Knapp, 1995). Changes may relate to the ethnic make-up of the community or the average age of its residents (Bull, 1993; Castle, 1995). With many substantial changes taking place, rural schools may need to anticipate a diminished tax base or respond to pressure to provide new facilities, or, in some unfortunate communities, both at once. Moreover, rural schools face a barrage of new requirements promulgated by state legislatures and state education agencies bent on shaping school practices through the enactment of accountability laws and regulations (e.g., North Carolina State Department of Public Instruction, 1994; South Carolina Department of Education, 1986). In the main, principals and teachers are buffeted by vast, wanted and unwanted changes that sometimes seem incomprehensible (Fullan, 1991; Kowalski & Reitzug, 1993).

The changing environments surrounding schools and the need to anticipate a highly unstable future make it difficult for educators and community members to identify clear aims for schools and strategies to advance those aims. Under such conditions, school leaders are exhorted to be proactive (Loader, 1997) — to anticipate, manage, and even lead change (Hoyle, English, &

Steffy, 1998).

Planning — formal or informal, systematic or traditional — constitutes an important response to the unpredictable futures that schools face. Even in unstable environments planning can reduce surprises, helping the school community adjust to change and remain focused on its most important aims (Kimbrough & Burkett, 1990; Sybouts, 1992). Failing to plan is chancing the potential and the future of the school (Kaufman, 1972).

Under classical management theory, planning has been interpreted as an executive function, reserved primarily for those upper-level managers with the most complete view of the organization as a whole (e.g., Lauenstein, 1986; Roney, 1977). In school districts, planning has conventionally been viewed to be within the domain of the superintendent and the board of education (e.g., Herman & Kaufman, 1983; Lilly, 1985). Recent attention to school-based management has, however, shifted the burden for planning — especially for the planning of school-wide instructional improvements — to the principal (Kowalski, 1999).

The responsibility for planning may, however, put the principal in a precarious position. As Louis and Rosenblum (1977) suggest, planning may be complicated even for rural principals by the need to mediate between the interests of the school community — teachers and parents — and the interests of more remote, but often more powerful, sources of influence. Moreover, these authors argue that as rural schools grow in size and complexity, principals will need to devote greater time and attention to executive functions such as planning.

Contemporary literature on the principalship indeed reflects this trend, with a number of authors assigning responsibility for long-range and strategic planning to the principal (Herman, 1989, 1994; Kaufman & Herman, 1991; Loader, 1997; Seyfarth, 1999; Snyder, Acker-Hocevar,

& Snyder, 1994; Ubben & Hughes, 1997). Moreover, accountability measures in many states now require that principals work with their staffs, parents, and community leaders to develop school-wide improvement plans (e.g., Johnson, 1998; North Carolina State Department of Public Instruction, 1994; South Carolina Department of Education, 1986).

Despite the apparent need for principals to be responsible for planning, very few studies to date have examined principals' actual approaches to planning, and none have examined possible contextual influences on rural principals' planning. In this study, therefore, we explored the different approaches to planning that principals take and examined two contextual characteristics and two personal characteristics that seem most likely to influence principals' approaches to planning. In this article (one of two), we report findings related to the two contextual influences: rural locale and state. For a discussion of the influences of personal characteristics, see Howley, Howley, and Larson (in press).

The Relevance of Rural Locale

Supporters of pedagogy of place (e.g., Sher, 1995; Rural Challenge Policy Program, 1998; Theobald, 1997) might wish to know how rural as opposed to other principals actually are planning, so that planning might, eventually, better accommodate such a pedagogy. This sort of planning is imagined as entailing (Rural Challenge Policy Program, 1998) more consensual forms, according greater respect to tradition, and exhibiting a more complex appreciation of the relationship between means and ends (i.e., *less* technical rationality).

More to the point in the present case, rural purposes and lifeways comprise no part--at all--of the mainstream professional conversation about school improvement in either West Virginia

or Ohio. In fact, rural lifeways and communities in these states are more likely than not to be seen as *impediments* to educational improvement, though few officials feel sufficiently comfortable to voice such concerns publicly. Nonetheless, rural places are commonly considered deficient, inferior, and in need of fixes, particularly including educational fixes (Herzog & Pittman, 1995; Seal & Harmon, 1995).

The available evidence about rural principals (e.g., Brown, Carr, Perry, & McIntire, 1996; Louis & Rosenblum, 1977; Reisert, 1992; Schmuck & Schmuck, 1992; Stern, 1994) does not address approaches to planning at all. The description of the rural principal's role, moreover, closely resembles generic descriptions of the role. We learn from these studies that flexibility and compromise are important (Reisert, 1992), as is tolerance for ambiguity (Brown et al., 1996; Schmuck & Schmuck, 1992), and the capacity to pursue multiple tasks simultaneously (Stern, 1994). Indeed, some observers doubt that rural schools, in general, are any closer to their communities than schools anywhere else: in general, and for the most part, schools both rural and non-rural maintain a similar distance from their respective communities (e.g., Howley, Bickel, & McDonough, 1996; Schmuck & Schmuck, 1992).

Rural societies are typically portrayed as comparatively more informal, less modern and more respectful of tradition than urbanized societies (e.g., Wilkinson, 1986). The extent to which the rural circumstance in the US might constitute a "rural society" has not, however, been well articulated. In fact, rural *schooling* has been criticized by many observers as substantially dominated by cosmopolitan norms and purposes (e.g., DeYoung, 1995). Many such observers insist that cosmopolitan dominance subverts rural communities and lifeways, and that communities and educators ought instead to struggle toward educational forms that sustain and

develop rural communities and lifeways (e.g, Theobald, 1997).

The Relevance of State

The possible relevance of state differences is more obvious. The state is the ultimate educational authority in the US, given the failure of the federal constitution to establish education as a fundamental right. Most of the policies with the strongest influence over the attitudes and behavior of principals originate at the state level, and the policies vary substantially among the states (e.g., Wirt & Kirst, 1989). The state contexts that influence schooling, however, are not limited to state differences among education policies, but entail economic, social, and political histories that vary substantially by state (e.g., Spring, 1998).

This study used two states to represent substantially different contexts for education, broadly speaking. The economy of Ohio, overall, is much more diverse and more affluent than the West Virginia economy. West Virginia was developed as an internal US colony, principally in the latter half of the 19th century, with a consequently narrow economic base and legacy of poverty and dependence and elites that emerged to reinforce these legacies (DeYoung, 1995; Salstrom, 1991). Schooling in Ohio is organized by 612 independent school districts; all districts in West Virginia were consolidated into county districts during the Great Depression (432 became 55 with one Act of the legislature). Townships persist everywhere in Ohio as political units, but in West Virginia the county identity dominates the full range of social and civic projects from schooling to roads to libraries to "welfare." In Ohio, towns and townships maintain comparatively vigorous identities and institutional capacities based on a lengthy history of localism (e.g., Guitteau, 1949).

At the same time, however, there are commonalities in the educational plight of the two states. Education funding is troubled in both states, and rural interests have, in both states, successfully pursued litigation that has overturned the legality of the prevailing state systems of school finance (with little ultimate effect on educational funding in each case). In each state, as well, the respective legislatures have enacted serious accountability and testing measures, and each state's "reform" package requires principals to draw up school improvement plans. These two states' accountability schemes may, in fact, constitute the enduring outcome of rural equity challenges, rather than any meaningful reform of education finance.

In any case, so little is known of principals' planning, that whatever we seemed to know about rural or state differences would have only a theoretical bearing on the choice between framing a null or directional hypothesis. In the case of possible influences by locale and by state, it would therefore seem most appropriate to employ the null hypothesis.

Method

We mailed subject principals a questionnaire, which asked respondents to provide information about their backgrounds and to answer questions about the planning procedures they thought were most important. To improve the return rate, we included a self-addressed stamped envelope, and ten days after the original mailing, we sent a follow-up postcard as a reminder.

Sample

The sampling frame for this study was the Common Core of Data (CCD), maintained by the National Center for Education Statistics (NCES). The CCD contains basic information about

every school in the nation, and is available in downloadable data sets, partitioned by state, from the NCES web site (http://www.ed.gov/NCES/ccd/index.html).

School records in the CCD include a type-of-locale code with the unique property of coding rural locales within metropolitan areas (Johnson, 1989). This feature avoids the underestimation of "rural" inherent in other measures. The Johnson codes, moreover, are the only locale codes specifically devised for use with schools as the unit of analysis. There are seven values: rural, small town, large town, urban fringe of mid-size city, urban fringe of large city, mid-size city, and large city. For this study, we defined "suburban" as the two urban-fringe locales.

From the CCD data sets we extracted schools located in suburban (Johnson codes 3 and 4) and rural (Johnson code 7) locales. The universe of such schools for Ohio comprised 900 suburban and 945 rural schools, and for West Virginia, 143 suburban and 538 rural schools. The total school universe for this study, then, included 1,043 suburban and 1,438 rural schools, or 2,526 total.

We set 95% as the confidence level and 4% as the confidence interval for the sample draw (for the cells created by crossing state and locale). Using the 1996 data sets (the latest then available) for Ohio and West Virginia, we extracted records randomly, stratified by suburban and rural locale, except that we included all records coded as suburban in the West Virginia frame in the sample drawn, in effect a 23% oversample. Even with the oversampling, however, the returned set of questionnaires from West Virginia principals included twice as many rural as suburban schools. The sample drawn included 293 rural schools and 143 suburban schools in West Virginia (N=436), and 367 rural schools and 360 suburban schools in Ohio (N=727), for a

total N of 1163.

We received 651 questionnaires from respondents, for an overall return rate of 56 percent.[1] Returns provided 207 cases for West Virginia (157 rural, 45 suburban, and 5 with missing data on locale) and 441 cases for Ohio (219 rural, 207 suburban, and 15 with missing data on locale); 3 cases had missing data on "state." In all analyses, West Virginia suburban cases were weighted 2.09 in order to provide a 60-40 ratio of valid cases for the locale categories in that state.

Instrumentation

We evaluated principals' approaches to planning using an instrument constructed for that purpose. Because we considered the construct "planning" to be markedly different from the construct "decision-making," we made the determination that an instrument such as Calabrese' (1995) *Decision Making Inventory* or Hersey and Natemeyer's (1982) *Problem-Solving Decision-Making Style Inventory* would not adequately meet our needs.

Theoretical Grounding

We searched the literature on planning and decision-making in order to elaborate a typology incorporating conceptually distinct approaches to planning. Our analysis of the literature suggested that we would be justified in dividing approaches to planning into five types,

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[1] Subsample response rates were as follows: 53.5% (WV, rural); 31.4% (WV, suburban); 59.7% (OH, rural); and 57.5% (OH, suburban); 57.1% (rural); 50.3% (suburban); 47.5% (WV); and 60.7% (OH). With a 95% confidence level, obtained samples exhibited the following confidence intervals (conservatively estimated): 6.59 (WV, rural); 12.14 (WV, suburban); 5.81 (OH, rural); 5.98 (OH, suburban); 5.69 (WV); 4.07 (OH); 4.36 (rural), and 5.36 (suburban). The total sample (N=651) exhibited a confidence interval of 3.31.

but the literature also provided evidence that distinctions among the prototypical approaches to planning are not so clear-cut as we might have wished.

Expanding upon a functional typology proposed by Adams (1991), we identified five types of planning. Adam's typology distinguished three types of planning — technicist, political, and consensual — on a continuum from rational to interactive (or naturalistic). Like Adams, we took political and consensual planning to represent gradations along the interactive side of the continuum, but unlike Adams, we thought it would be important to identify gradations on the rational side as well. Moreover, we concurred with some authors (e.g., Krabuanrat & Phelps, 1998; Quinn, 1978) who suggested that there is a distinct form of bounded rational planning — falling somewhere between rational and interactive approaches — that constitutes an incremental, heuristic, and goal-free method of planning. Altogether our expanded continuum included two technicist approaches — the *reactive* approach and the *technicist* approach, one approach — the *incremental* approach — presumed to bridge the rational and interactive sides of the continuum, and two interactive approaches — the *political* and the *consensual*.

Instrument Development

We developed items that we believed would be sensitive to the five types of planning discussed in the literature. In addition, we included items that related to the independent variables identified as possible predictors of principals' approaches to planning. We pilot-tested the preliminary draft of the instrument with a group of 20 principals, whose names we then excluded from the universe sampled in the larger study. We asked the principals to identify items that they thought were ambiguous or poorly worded, and we revised the instrument based

on their comments.

We refined the instrument further by using data from the 604 respondents in the final sample who answered all of the questions on the instrument. Using factor analysis (principal components with varimax rotation), we identified empirically and conceptually discrete scales. Altogether, we extracted five factors, which accounted for 47.2 percent of the total variance on the instrument. The first factor accounted for 20.1 percent of the variance and included items corresponding to our conceptual definition of *technicist* planning. Because the items that loaded heavily on this factor reflected recent as well as conventional conceptions of strategic planning (i.e., they attended to the idea of shared vision as well as to the aim of identifying the optimum course of action), we chose the term *new technicist* as the most apt descriptor of the factor.

The four additional factors — each accounting for a smaller proportion of the overall variance — paralleled our theoretical typology fairly well. The second factor, *traditional-consensual* planning, accounted for 9.5 percent of the variance and included items that referred to the process of developing plans on the basis of existing agreements and community expectations. We did not, however, identify a factor that explicitly conceptualized planning as a political process, grounded in conflict and negotiation rather than in collaboration and consensus. Our third factor corresponded best to Cohen, March, and Olsen's (1972) description of *organized anarchy*, which characterizes decision-making in some organizations. This factor accounted for 7.1 percent of the overall variance on the instrument. The last two factors, *incremental* and *reactive* planning, corresponded to types of planning that we included in the theoretical typology, and they accounted for 5.6 and 4.9 percent of the variance respectively. Additional technical information about the instrument — including the actual items and their loadings on the five

factors — can be found in Howley, Howley and Larson (in press).

Findings

Missing data reduced the number of cases available (via listwise deletion of cases, for instance) available for analysis. In addition, to compensate for the low return rate from suburban principals in West Virginia, we used weighted data in all inferential analyses. The descriptive statistics, however, report all available unweighted data.

Descriptive Analyses

This section reports means and standard deviations for (a) contextual variables and (b) principals' ratings of our measures of approaches to planning. Descriptive statistics are reported by locale (rural vs. suburban) within state (West Virginia vs. Ohio).

Contextual Variables

The previous report from this study (Howley et al., in press) detailed the influence of gender and experience on principals' approaches to planning. Table 1 reports univariate statistics (means and standard deviations) for variables salient to the rural context in comparison to relevant suburban norms. Variables include SES, school size, district size, and career ratio. The latter two variables were statistically significant individual-level predictors of principals'

preferred approaches to planning in the previous study (Howley et al., in press).[2]

Table 1: Univariate Statistics[a] (Contextual Variables[b])

Locale	State		SES	SS	DS	CAR_RAT
suburban	WV	Mean	39.62	508.89	13793.12	.6223
		SD	19.87	378.43	10009.93	.2011
	OH	Mean	19.87	654.99	6142.76	.4983
		SD	19.48	410.75	7502.43	.2268
	Total	Mean	23.51	628.90	7443.63	.5202
		SD	20.96	408.31	8465.80	.2271
rural	WV	Mean	61.16	309.33	6946.79	.5668
		SD	18.18	200.79	7608.34	.2453
	OH	Mean	25.13	424.34	1764.13	.4837
		SD	18.72	198.79	1186.56	.7179
	Total	Mean	40.35	376.37	3871.37	.5178
		SD	25.66	207.29	5547.44	.5741
Total	WV	Mean	56.32	354.01	8460.19	.5793
		SD	20.60	264.02	8652.91	.2367
	OH	Mean	22.59	536.68	3896.24	.4908
		SD	19.25	339.88	5732.46	.5379
	Total	Mean	33.63	478.03	5315.47	.5188
		SD	25.27	328.57	7091.85	.4659

a. unweighted data
b. All variables represent principal self-reports; SES=free-and-reduced-price-meals rates; SS=school enrollment; DS=district enrollment; CAR_RAT=career ratio.

[2]In that study, for instance, being female increased the degree of preference for the new technicist approach, as did logged district size; career ratio, however, reduced the degree of preference for the new technicist approach. Neither state, nor locale (as dummy variables) nor SES proved to be influential predictors. Gender is not included in Table 1 because it does not covary with locale or state; approximately 30 percent of the sample is female regardless of state or locale.

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Data patterns in Table 1 suggest the existence of a number of meaningful contextual differences. The differences represent well-established rural and non-rural differences. As one would expect, SES is substantially lower in rural as compared to suburban locales (40% vs. 24% free-and-reduced-price-meals rate), and both rural *schools* and the *districts of which they are a part* are smaller (by 40% for schools and 60% for districts).

The state differences that appear in Table 1 are more obscure to anyone without first-hand experience of both states. First, the experience of principals differs markedly by state (58% vs. 49% of careers spent as administrators, $p<.024$, unweighted comparison,[3] in West Virginia and Ohio, respectively). The difference is, in fact, somewhat more marked in between-state comparison by locale, with Mountaineer suburban principals even more comparatively-experienced-in-role (i.e., higher proportion of career spent in administration) than their Buckeye counterparts (62% vs. 48%) in relationship to the rural between state difference (57% vs. 48%), although this observed two-way difference does not prove statistically significant.

State differences also exist on SES and the two measures of size. Not surprisingly, SES is much lower in West Virginia than in Ohio, with free-and-reduced-price-meal rates more than twice as high in West Virginia as compared to Ohio. West Virginia schools are about 70% the size of Ohio schools (with suburban West Virginia schools closer in size to Ohio schools than rural West Virginia schools are), but with the Ohio districts *much smaller* than the West Virginia districts--Ohio districts in which the suburban schools of this sample are located are 46% the size

[3]For weighted data, $p<.005$.

of their WV counterparts, and the Ohio districts in which the rural school of this sample are located just 25% the size of their WV counterparts.[4]

Dependent Variables

Table 2 reports means and standard deviations for the three dependent variables analyzed in this report. These include aggregate factor scores representing the "new technicist," "traditional-consensual," and "organized anarchy" approaches to planning."[5] The statistics are reported by locale (rural vs. suburban) by state (West Virginia vs. Ohio).

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[4] West Virginia sponsors just 55 county districts, whereas Ohio sponsors 612 districts, with only the poorest rural districts in the poorest parts of the state having been reorganized in the past into county-wide or nearly county-wide districts (e.g., Morgan and Vinton counties). Note that the districts in this study are not necessarily identified (e.g., by the Common Core of Data, US Department of Education) as "rural districts" or as "suburban districts" but are, instead, simply the districts in which these randomly-selected rural or suburban schools are located. Rural schools can exist, in the CCD, within non-rural districts, and often do (Johnson, 1989).

[5]The are the three factors explaining the most variance, and, as scales comprised of items loading ≥.55 on the respective factors,, showing the alpha reliabilities of .73, .53, and .61 respectively (see Howley et al., in press).

Table 2: Univariate Statistics[a] (Dependent Variables: Aggregate Factor Scores)

			FACTORS		
			new technicist	traditional-consensual	organized anarchy
LOCALE	STATE				
suburban	WV	Mean	.201	.123	-.060
		SD	1.064	.944	1.034
	OH	Mean	.092	-.202	-.072
		SD	.942	1.051	.926
	Total	Mean	.112	-.142	-.070
		SD	.964	1.0382	.944
rural	WV	Mean	.087	.064	.217
		SD	.992	.997	1.0234
	OH	Mean	-.242	.079	-.098
		SD	.989	.973	.999
	Total	Mean	-.103	.073	.036
		SD	1.002	.982	1.020
Total	WV	Mean	.112	.077	.155
		SD	1.007	.983	1.030
	OH	Mean	-.080	-.057	-.085
		SD	.980	1.020	.963
	Total	Mean	-.017	-.013	-.066
		SD	.992	1.010	.991

a. unweighted cases; aggregate factor scores computed from weighted data

The observed values reported in Table 2 suggest that statistically significant differences by state and locale may well exist. Recall that factor scores for a full sample are z-scores (i.e., a mean of 0 and a standard deviation of 1). The grand means in Table 2 correspond closely to this ideal, but aggregate factor score differences by cells in the state cross locale matrix differ by as

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much as 0.4 standard deviation (i.e., rural OH vs. suburban WV on new technicist). The pattern of observed aggregate factor scores suggests that main effects and interaction effects may exist at statistically significant levels.

To determine the possible existence of statistically significant differences among aggregate factor scores by state and locale we performed two-way analyses of variance (locale by state) for each factor. The results confirm statistically significant differences for (1) new technicist (model significant at $p<.0005$) for locale ($p=.007$) and state ($p=.009$); (2) traditional-consensual (model significant at $p=.012$) for the interaction of locale and state ($p=.044$); and for organized anarchy (model significant at $p=.015$) for state ($p=.050$). In the case of organized anarchy, inspection shows that the source of the between-state difference is attributable almost completely to the more marked preference of WV rural principals as compared to all others. The interaction of state by locale approaches but does not attain statistical significance ($p=.070$) for organized anarchy.

To determine which of our contextual variables might account for these differences we repeated the two-way ANOVA, this time with logically selected covariates. We report the results of this analysis next.

Analysis of Covariance

Our regression analysis with these data (Howley et al., in press) identified three contextual variables to have significant influence on principals' factor scores: gender, career ratio, and logged district size. Because gender differences are not evident by locale or state (see Table 1) , we did not provide for the representation of gender in our ANCOVA model. Table 3

presents the results of the two-way multivariate ANCOVA (locale by state, with career ratio and logged district size as covariates).

Table 3: ANCOVA[a]: Planning factors (locale by state)

Source	Factor	df	F	Sig.	Power[a]
Corrected Model	New Technicist[b]	5	8.972	.000	1.000
	Traditional-Consensual[c]	5	3.219	.007	.889
	Organized Anarchy[d]	5	2.931	.013	.854
CAR_RAT	New Technicist	1	12.208	.001	.937
	Traditional-Consensual	1	2.218	.137	.318
	Organized Anarchy	1	4.538	.034	.566
LN_ENR_D[e]	New Technicist	1	16.456	.000	.982
	Traditional-Consensual	1	3.793	.052	.494
	Organized Anarchy	1	1.325	.250	.210
LOCALE	New Technicist	1	.072	.788	.058
	Traditional-Consensual	1	.001	.970	.050
	Organized Anarchy	1	3.859	.050	.501
STATE	New Technicist	1	.042	.837	.055
	Traditional-Consensual	1	6.116	.014	.695
	Organized Anarchy	1	.294	.588	.084
LOCALE * STATE	New Technicist	1	.770	.380	.142
	Traditional-Consensual	1	3.578	.059	.472
	Organized Anarchy	1	3.240	.072	.435

a observed power at alpha = .05
b R Squared = .070 (Adjusted R Squared = .063)
c R Squared = .026 (Adjusted R Squared = .018)
d R Squared = .024 (Adjusted R Squared = .016)
e natural log of district enrollment

Effects of Locale and State on Principals' Approaches to Planning

The results in Table 3 show that the influence of career ratio and district size is sufficient to explain the observed locale and state differences in principals' preferences for the new

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technicist approach to planning.[6] Table 3 also shows that the covariates do not exert significant influence on principals' preference for the traditional-consensual approach, but introduce a spurious main effect of state. Finally, career ratio, but not logged district enrollment, exerts a significant influence on principals' preferences for the organized anarchy approach.

To examine this latter influence further, we ran a second two-way ANCOVA for organized anarchy, with career ratio as the sole covariate. This analysis confirms that career ratio alone is sufficient to explain the between-state difference confirmed by the ANOVA (see previous discussion).

Least Preferred Approach

One result of this study that has not yet been articulated entails principals' preferences for organized anarchy. In the process of instrumentation for this study, we did not discover the continuum we had anticipated we might find. Instead, the patterns of the data suggest that (1) the various approaches to planning are not mutually exclusive and (2) principals deploy them eclectically. Such characteristics as gender, career ratio (proportion of career spent in administration), district size, locale, and state manifest influences on these preferences in varied ways.

One question that remains is whether or not, given the overall patterns, principals rate any approaches more highly than others. One technique for developing an answer to this question with our data is to use indexes constructed from the items loading heavily ($\geq .55$) on each factor,

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[6] By locale, equivalent to 1/4 standard deviation, with *rural* showing less preference than suburban for this approach and, by state, equivalent to about 1/5 standard deviation, with *Ohio* principals showing less preference for the new technicist approach.

with each respondent's raw index score multiplied by the constant needed to yield a maximum score equivalent to the maximum score possible (25) on the five-item "new technicist" index (i.e., a constant of 2.5 for the two-item indexes[7] and 1.667 for the three-item index[8]). With the constructed indexes thus computed, four approaches each exhibit medians of about 20, whereas organized anarchy exhibits a median of about 12. This technique provides some evidence to suggest that "organized anarchy" is the approach least popular among respondents.

Summary

We found evidence in this study that (1) rural vs. urban differences among principals' approaches to planning exist (new technicist) and (2) state differences (West Virginia vs. Ohio) also exist (new technicist and organized anarchy). We also found that an interaction of state and locale characterizes differences in principals' reported use of the "organized anarchy" approach. Results from the ANCOVA suggests that observed locale and state differences related to the reported use of the new technicist approach are accounted by career ratio and district size, and that career ratio alone accounts for the observed state differences with respect to organized anarchy. The source of influence that yields the interaction of state and locale with respect to preference for the traditional-consensual approach is not, however, evident in our data. Finally, principals seem, on the basis of these data, to approach planning eclectically, though evidence suggests that "organized anarchy" appeals to them less than any of the other approaches, all of

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[7]traditional-consensual, incremental, and reactive (see Howley et al., in press ,for further details)

[8]organized anarchy (see Howley et al., in press for further details)

which may be equally appealing to them.

Conclusions and Discussion

We did not substantiate a continuum of planning approaches, as the literature suggested we might, but rather an amalgam. Principals in our sample reported an eclectic use of planning approaches, with organized anarchy, in general, the approach least favored by them. Some differences, nonetheless, were apparent by locale and by state.

Conclusions

Suburban principals favored the *new technicist* approach more strongly than rural principals (effect size [es] of about .22). Moreover, West Virginia principals favored the new technicist approach more strongly than Ohio principals (es ≈ .19).

We found that the interaction of locale and state was significant for the *traditional-consensual* approach, with the aggregate factor scores increasing from rural to suburban in West Virginia, but decreasing from rural to suburban in Ohio. The suburban Ohio principals rated the traditional-consensual approach significantly lower (es ≈ .28) than rural Ohio principals.

We also found that aggregate factor scores on *organized anarchy* differed significantly by state, with West Virginia principals exhibiting significantly higher ratings on this factor (es ≈ .24). In fact, rural West Virginia principals exhibit a mean of .217,[9] whereas the other three

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[9]We performed an ANCOVA to confirm the significance of this ancillary finding. With WV rural compared to all other principals, and with career ratio the covariate, the significance of this difference is p=.003. That is, career ratio *does not* explain the comparatively higher aggregate factor loadings on organized anarchy among WV rural principals in comparison to all other principals.

groups (WV suburban, OH suburban, and OH rural) exhibit means that approximate the grand mean for this factor (i.e., 0). Effect sizes of rural West Virginia principals in comparison to the other three groups range from about .18 to about .31.

These differences are partially accounted for by influences that covary with locale and state, namely: (1) the proportion of their careers that principals have spent in administration and (2) the size of the district in which the principals' schools are located. In the case of the *new technicist* approach, both covariate influences are significant and account fully for the observed differences in aggregate factor scores by locale and state. By contrast, with respect to our findings about preferences for the *traditional-consensual* approach, neither the career variable nor the size variable reaches a statistically significant level of influence on the interaction of state and locale as it affects aggregate factor scores. In the case of *organized anarchy*, however, including the career variable is sufficient to explain the observed state effect; the influence of district size was not statistically significant after introduction of the covariate (cf. footnote 10).

Discussion

The professional literature characterizes planning as a comparatively new role for principals. The truth of this interpretation is difficult to gauge, since studies of planning have generally focused attention on the planning of *districts* (as analogous to the central administration of business concerns, with planning a function of top-ranking executives). Principals are, in one sense, middle managers within districts. From another perspective--that which considers the school to be the primary unit in the system of schooling--principals are nonetheless the executives with the *most influence* over the work of educators, and hence, arguably the most

important executives. The influence of central office staff would, from this perspective, be considered more distant and substantially more indirect. From this perspective, we might prefer to believe that principals are *not* such new-comers to planning. In fact, their seeming fluency across varied types of planning would suggest long habituation to the mentalities of planning.

The conditions under which principals devise and execute plans, however, vary. Our findings suggest that these conditions are indeed capable of deflecting the planning of principals somewhat from the well-worn path of technical rationality as typified in this study by the "new technicist" factor. For instance, the observed statistics in Table 2 suggest that among all 4 locale by state categories, *suburban Ohio principals* show less interest in traditional-consensual approaches to planning, whereas *rural Ohio principals* show less interest in the new technicist approaches. In West Virginia, other observed results are suggestive: among all 4 locale by state categories, the *suburban West Virginia principals* stand out as favoring the new technicist approach, whereas the *rural West Virginia principals* show a comparative preference for the organized anarchy approach. Construed as comparisons among four separate groups (rather than as differences along two dimensions) these observed differences do exhibit statistical significance, even though the emergent patterns are muted in the overall ANOVA and ANCOVA results.

Overall our findings suggest that the *particulars* of locale (state and locale as they encompass and differentiate prevailing conditions) rather than locale per se (or uniquely) account for differences in principals' approaches to planning. West Virginia principals tend to find themselves in larger districts and, thus, they fashion their planning efforts to fit in with the requirements of the larger, more distinctly bureaucratic systems that prevail in that state (cf.

Howley, 1996). If new technicist approaches are best suited to implementing systemic reform, as they are purported to be (e.g., Kaufman & Herman, 1991; Lilly, 1995), then West Virginia's move to tighter coupling via a reduced span of control (55 instead of 612 districts) may improve the chances that its education bureaucracy can successfully impose top-down reform measures.

This interpretation, moreover, sheds some light on the rather startling finding that, of all principal groups, only the rural West Virginia principals show somewhat strong support for organized anarchy. This approach more than any of the others takes account of chaotic conditions in the environment surrounding the organization and permits the organization to take action in face of uncertainty and even duress. In other words, principals who intend that their planning organize anarchy are "making the best out of a bad situation."

More than many groups of principals, those in rural West Virginia schools might certainly be said to be facing a bad situation. Rather systematically over the past decade, the legislature and the State Board of Education have advanced policies targeting rural schools for closure, consolidation, and State Department sanction (DeYoung & Howley, 1992; Purdy, 1997). Even when they are meeting conventional standards of effectiveness (e.g., high scores on standardized tests), rural schools in West Virginia are beleaguered by demands to implement curricula (e.g., integrated science) and practices (e.g., computer assisted learning programs) promulgated by state-level bureaucrats and responsive to cosmopolitan business interests rather than to local needs and concerns (Howley, 1996). Facing pressures such as these, but cognizant also of community values and expectations, principals in rural West Virginia schools may often find themselves forging a somewhat precarious truce between state-level requirements and locally responsive practices.

Interestingly, rural principals in West Virginia were less likely than their suburban counterparts--and also less likely than rural principals in Ohio--to favor traditional-consensual approaches to planning. This finding fits well with an interpretation focusing on the contradictory, even chaotic, conditions that rural West Virginia principals face. These principals may find that traditional approaches are no better than technical ones in helping them chart a workable course for their schools. Organized anarchy may offer a pragmatic and flexible way to mediate between technical-rational and traditional interests.

What can explain such patterns? First, one might speculate that the strength of the new technicist factor derives from 100 years of educational practice derivative of classical management theory and "the cult of efficiency" (cf. Callahan, 1962). Certainly the school improvement planning processes mandated by Columbus and Charleston do not principally rest on the precepts of any of the other planning approaches (organized anarchy least of all!).

The appearance of district size as an influential covariate suggests, second, the importance of the divergent histories of education in the two states, with district reorganization completely altering the West Virginia administrative scene almost overnight, during the Depression. The larger the district, the more valorized the new technicist approach (see Howley et al., in press) and West Virginia maintains rural districts considered huge by the norms of experience in the Midwest and West. The much smaller districts in which Ohio rural schools are located might bear more systematically on the disparate valorization of the new technicist and traditional-consensual approaches to planning than we were able to discover given the limitations of this study (e.g., survey methodology, new instrumentation, choice of states). Third, if modernist attitudes and values are most fully represented in the new technicist approach (as it

seems they are), a possible theoretical explanation exists for the observed pattern: principals in suburban districts are more likely to deploy a modernist approach to planning, whereas principals in rural districts are more likely to deploy a traditional-consensual approach. Further study along these lines seems warranted.

This discussion raises an important methodological issue. Might differences between *locales within state* be stronger than differences between *states within locales*? This question should concern scholars of rural education because it addresses the question of research strategy: Would one study the rural context more profitably *within* a state or *across* states? We think the evidence from this study would recommend the former rather than the latter course. West Virginia principals are evidently more "planful" across the board than Ohio principals, as the observed means in panel 3 of Table 2 ("Total") suggest. The dramatic difference in the SES statistics between the two states also points to the importance of state context (i.e., despite the fact that SES does not exert a measurable direct or indirect influence on the dependent variables used in this study). This observation is hardly intended to suggest that state contexts are superordinate, or more salient than locale, but rather that historically diverging state policies, histories, and economies serve to differentiate rural meanings and practices in important ways from state to state. Failure to take stock of such differences could bias results toward confirmation of the null hypothesis when possible rural differences are the object of study. Only as these differences are better understood will it be possible to develop better interpretations of the rural experience generally. The results reported here, in fact, tend to confirm such an inference because the full impact is clearest if "locale" is conceived more complexly (i.e., as the

interaction of state and locale).[10]

Principals often lead school change, sometimes by tradition, but increasingly by the imprecation of a higher administrative body (LEAs, SEAs, the U.S. Department of Education). The modalities of school planning inevitably reflect the agendas of the sponsoring authorities, and principals themselves are little aware of this ideological condition of their work lives. Rural school change that is responsive to local circumstance--that is, change that consciously intends to nurture local community over individual greed or the remote prerogatives of national priorities--is not likely to follow the same plan as rural school change directed toward support of globalization and greed (Pittman, McGinity, & Gerstl-Peppin, 1999). The findings reported here suggest that principals do approach planning in different, multiple ways, and that rural principals could well alter their approaches to planning to emphasize more inclusive and responsive approaches directed at helping rural communities (for instance) to sustain themselves, while downplaying the top-down tendencies of technical rationality.

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[10]In this article, we use the term "locale" to refer to the Johnson codes. Here we are suggesting that one might better reserve the term "locale" to identify places in multi-state studies as defined by the interaction of state and Johnson code. The idea that rural would manifest itself differently by state is familiar in the literature on rural economies (e.g., Cook & Mizer, 1994).

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